



# National Weather Service

## Storm Data and Unusual Weather Phenomena



January 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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### CONNECTICUT, Northeast

**CTZ002>004**      **Hartford - Tolland - Windham**  
**18**      **1900EST**      **0**      **0**      **Strong Winds**  
**2200EST**  
 Strong south winds occurred ahead of an approaching cold front, gusting as high as 55 mph. A peak gust to 56 mph was reported at Bradley International Airport in Windsor Locks. There were no reports of damage.

**Hartford County**  
**Southington**      **24**      **1815EST**  
**25**      **0400EST**      **0**      **0**      **Flood**  
 Quinnipiac River  
 Rainfall amounts of 2 to 3 inches caused the Quinnipiac River to overflow its banks. The river crested at 4.0 feet at Southington, just over the flood stage of 3.5 feet. There were no reports of flood damage.

### MASSACHUSETTS, Central and East

**Bristol County**  
**Taunton**      **03**      **1200EST**  
                                  **1900EST**      **0**      **0**      **Heavy Rain**

**MAZ002>004-008>012**      **Western Franklin - Eastern Franklin - Northern Worcester - Western Hampshire - Western Hampden - Eastern Hampshire - Eastern Hampden - Southern Worcester**  
**03**      **1200EST**      **0**      **0**      **Freezing Rain**  
                                  **1800EST**

**Norfolk County**  
**Walpole**      **03**      **1200EST**  
                                  **1900EST**      **0**      **0**      **Heavy Rain**

**Plymouth County**  
**Plymouth**      **03**      **1200EST**  
                                  **1900EST**      **0**      **0**      **Heavy Rain**

**Suffolk County**  
**Boston**      **03**      **1200EST**  
                                  **1900EST**      **0**      **0**      **Heavy Rain**

**MAZ019>024**      **Eastern Plymouth - Southern Bristol - Southern Plymouth - Barnstable - Dukes - Nantucket**  
**03**      **1300EST**      **0**      **0**      **Strong Winds**  
                                  **1900EST**

**MAZ019-022**      **Eastern Plymouth - Barnstable**  
**03**      **1515EST**      **0**      **0**      **High Wind (G62)**  
                                  **1831EST**

A developing low pressure system moving from the mid Atlantic states into southern New England brought strong southeast winds and more than 2 inches of rain to eastern and southeastern Massachusetts. Freezing rain occurred in the central and western part of the state, especially in the valleys

Strong winds occurred across all of southeastern Massachusetts, including Cape Cod and the Islands. A peak wind gust to 71 mph was reported at Chatham, and a gust to 65 mph was reported at Onset, where two trees were blown down. In Fairhaven, a gust to 56 mph downed a telephone pole which resulted in a power outage. Other strong wind gusts included 56 mph at West Island, 55 mph at Nantucket and Pocasset, 48 mph at Martha's Vineyard, and 46 mph at Taunton and Plymouth.

Heavy rainfall associated with the storm totaled 1.5 to 2.5 inches in less than 12 hours. As much as 2.25 inches fell in Walpole, 2.05 inches in Dedham and 2.00 inches in Norwood. 1.93 inches of rain fell at the Blue Hill Observatory in Milton, with as much as 0.8 inches in one hour. There were no reports of flooding.

In central and western Massachusetts, temperatures remained below freezing, which resulted in a period of freezing rain. Glaze accumulations of up to one-half inch were reported from Chicopee and Russell in Hampden County, Hubbardston and Leicester in Worcester County, and from Shutesbury in Franklin County. The accumulation of ice downed branches and wires in West Springfield and Chicopee. Scattered power outages affected about 2,000 customers, including about 1,300 in Ludlow.



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					Killed	Injured	Property	Crops	

### MASSACHUSETTS, Central and East

MAZ002-005>008-  
012>019

**Western Franklin - Western Middlesex - Western Essex - Eastern Essex - Western Hampshire - Southern Worcester - Western Norfolk - Southeast Middlesex - Suffolk - Eastern Norfolk - Northern Bristol - Western Plymouth - Eastern Plymouth**

<b>14</b>	<b>0000EST</b>	<b>0</b>	<b>0</b>	<b>Heavy Snow</b>
<b>15</b>	<b>0000EST</b>			

A strong high pressure system centered over southeast Canada brought an Arctic airmass into Massachusetts. Northeast winds off the warmer waters of the Atlantic Ocean produced "ocean effect" snow squalls along the eastern coast from Essex County to Plymouth County. During the same time, an intensifying low pressure system over the mid Atlantic states brought a more general snowfall across the state. The highest snowfall totals were found in two areas - in coastal northeast Massachusetts and in Boston's southern suburbs, which both received enhancement from the "ocean effect" snow. Total snowfall in these areas ranged from 10 to 16 inches, with as much as 16.5 inches in South Weymouth. The heavy snow in the Boston area created havoc with the afternoon and evening rush hour. Many drivers abandoned their vehicles on a section of the Southeast Expressway in Quincy, and also along most of Route 128. Portions of both of these roadways had to be closed until snowplows could keep up with the snow, which was falling at the rate of around 2 inches per hour. It took evening commuters as long as 3 to 4 hours just to drive 10 to 15 miles. Schools were closed in Greater Boston for one to two days as a result of this storm.

Those areas which did not receive the enhancement from the ocean, namely western and central Massachusetts, and eastern Massachusetts outside of the Interstate 495 corridor, received somewhat lower amounts. About 6 to 9 inches fell across the remainder of eastern Massachusetts. Only one or two locations in western Massachusetts reported 6 to 8 inches of snow, both of which were in Franklin County.

MAZ002>006

**Western Franklin - Eastern Franklin - Northern Worcester - Western Middlesex - Western Essex**

<b>15</b>	<b>0000EST</b>	<b>0</b>	<b>0</b>	<b>Freezing Rain</b>
	<b>1300EST</b>			

Snow changed to freezing rain across northern Massachusetts, from Franklin County to Worcester, Middlesex, and Essex Counties during the early morning hours. Glaze accumulated from one quarter to one half inch. Scattered power outages were reported when the buildup of ice knocked down branches onto power lines. As much as 2,500 customers lost power in Clinton, and another 700 lost power in Lynn. Other outages were reported in Burlington and Sudbury.

**Bristol County**  
**Taunton**

<b>15</b>	<b>0900EST</b>	<b>0</b>	<b>0</b>	<b>Heavy Rain</b>
	<b>1700EST</b>			

MAZ019>024

**Eastern Plymouth - Southern Bristol - Southern Plymouth - Barnstable - Dukes - Nantucket**

<b>15</b>	<b>0900EST</b>	<b>0</b>	<b>0</b>	<b>Strong Winds</b>
	<b>1700EST</b>			

**Middlesex County**  
**Framingham**

<b>15</b>	<b>0900EST</b>	<b>0</b>	<b>0</b>	<b>Heavy Rain</b>
	<b>1700EST</b>			

**Norfolk County**  
**Norwood**

<b>15</b>	<b>0900EST</b>	<b>0</b>	<b>0</b>	<b>Heavy Rain</b>
	<b>1700EST</b>			

**Plymouth County**  
**Plymouth**

<b>15</b>	<b>0900EST</b>	<b>0</b>	<b>0</b>	<b>Heavy Rain</b>
	<b>1700EST</b>			

**Worcester County**  
**Worcester**

<b>15</b>	<b>0900EST</b>	<b>0</b>	<b>0</b>	<b>Heavy Rain</b>
	<b>1700EST</b>			

Rainfall of 1 to 2 inches combined with rapid snowmelt to result in considerable urban street flooding and ponding of water in low lying areas. There were also many reports of basement flooding. The problem was aggravated by storm drains which became



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### MASSACHUSETTS, Central and East

clogged by snow and ice. Temperatures rose rapidly from the 20's and 30's into the 40's and 50's, which melted much of the 8 to 15 inches of snow which was on the ground. Scattered thunderstorms also accompanied the heavy rain. In southeastern Massachusetts, strong southeast winds of 40 to 50 mph were also reported.

The most severe street flooding occurred in Greater Boston, where many cars were submerged or stalled in low lying areas. In Boston, the Callahan Tunnel flooded, stranding several vehicles. Several cars were submerged in flood waters when underpasses on Route 128 in Dedham and Needham flooded out. No injuries were reported.

MAZ002>003-008>011	Western Franklin - Eastern Franklin - Western Hampshire - Western Hampden - Eastern Hampshire - Eastern Hampden								
	18	0630EST 1500EST			0	0			Freezing Rain
MAZ002>024	Western Franklin - Eastern Franklin - Northern Worcester - Western Middlesex - Western Essex - Eastern Essex - Western Hampshire - Western Hampden - Eastern Hampshire - Eastern Hampden - Southern Worcester - Western Norfolk - Southeast Middlesex - Suffolk - Eastern Norfolk - Northern Bristol - Western Plymouth - Eastern Plymouth - Southern Bristol - Southern Plymouth - Barnstable - Dukes - Nantucket								
	18	1900EST 2200EST			0	0			Strong Winds
MAZ005-017-020	Western Middlesex - Northern Bristol - Southern Bristol								
	18	2016EST 2120EST			0	0			High Wind (G54)
Dukes County Marthas Vineyard Arp									
	18	2104EST			0	0			Thunderstorm Wind (G52)

Low pressure moving northward into Canada brought a variety of weather to Massachusetts, including freezing rain, high wind, and scattered thunderstorms.

Freezing rain in western Massachusetts caused severe icing of roadways, especially in the valleys of Franklin, Hampshire, and Hampden Counties. Many towns reported states of emergency. Roads were closed in many communities, including Goshen, Northfield, Colrain, Florida, Heath, Cummington, Chester, Gill, Huntington, and Russell. Thunderstorms accompanied the freezing rain during the afternoon.

Strong south winds occurred ahead of an approaching cold front, mainly in the eastern part of the state, but also across the higher elevations of western and central Massachusetts. Gusts as high as 45 to 55 mph were common. A spotter in Tyngsboro reported a peak gust to 63 mph at 920 pm, which occurred just behind the cold front. A gust to 59 mph was reported from West Island on Buzzard's Bay. Other strong wind gusts included 58 mph in Taunton (spotter), 54 mph at the Blue Hill Observatory in Milton, 53 mph in Worcester, 47 mph at Logan International Airport in Boston, and 46 mph in Hyannis. In Dartmouth, in Bristol County, wires were downed by the strong winds. There were many reports of downed branches, some of which caused power outages by falling on wires.

Scattered thunderstorms were reported throughout most of the state, however the strong winds were not directly associated with the thunderstorms. The exception was on Martha's Vineyard, where thunderstorms produced a wind gust to 60 mph at the Martha's Vineyard Airport around 900 pm. In Oak Bluffs on the Vineyard, large tree limbs were downed and a small shed was blown down at the high school. Lightning strikes resulted in several power outages, and in central Massachusetts, lightning started an attic fire in Gardner, causing minor damage to a building.

MAZ007-013>024	Eastern Essex - Western Norfolk - Southeast Middlesex - Suffolk - Eastern Norfolk - Northern Bristol - Western Plymouth - Eastern Plymouth - Southern Bristol - Southern Plymouth - Barnstable - Dukes - Nantucket								
	24	0000EST 1500EST			0	0			Strong Winds
MAZ013	Western Norfolk								
	24	0814EST			0	0			High Wind (G55)
	Blue Hill Observatory								



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### MASSACHUSETTS, Central and East

<b>MAZ012-015</b>	<b>Southern Worcester - Suffolk</b>						
	<b>24</b>	<b>0843EST</b>			<b>0</b>	<b>0</b>	<b>Record Warmth</b>
		<b>1000EST</b>					

**Worcester County**  
**Barre**

	<b>24</b>	<b>1630EST</b>					
	<b>25</b>	<b>0400EST</b>			<b>0</b>	<b>0</b>	<b>Flood</b>

Ware River

South winds gusted to as high as 55 mph in advance of a strong cold front. The strongest winds occurred across eastern Massachusetts, and were accompanied by heavy rain showers and mild temperatures.

A peak wind gust to 63 mph was recorded at the Blue Hill Observatory in Milton. Some of the other higher wind gusts reported include 50 mph at Otis Air Force Base in Falmouth, 48 mph in Cohasset, and 47 mph in Plymouth.

Scattered showers produced localized rainfall of 2 to 3 inches in a short period of time. The Ware River in Worcester County overflowed its banks, and crested at 4.2 feet on the evening of the 24th, just over its flood stage of 4 feet. No flood damage was reported.

Two record high temperatures were also broken. At Worcester Municipal Airport in Worcester, the high temperature of 59 degrees at 843 am broke the previous record high of 56 degrees which was set in 1906.

In Boston, the temperature at Logan International Airport reached 62 degrees at 1000 am, which broke the previous record high of 61 degrees which was set in 1967.

### NEW HAMPSHIRE, Southern

<b>NHZ011&gt;012</b>	<b>Cheshire - Hillsborough</b>						
	<b>14</b>	<b>0000EST</b>			<b>0</b>	<b>0</b>	<b>Heavy Snow</b>
	<b>15</b>	<b>0600EST</b>					

A developing low pressure system over the mid Atlantic states brought heavy snow to parts of southwest New Hampshire. Totals of 6 to 8 inches were common, especially along the Massachusetts border. Spotters reported 8 inches of snow in Jaffrey, 7 inches in New Ipswich, and 6 inches in Keene and Rindge. The storm caused numerous skidding accidents, and closed schools and some businesses.

### RHODE ISLAND

<b>Bristol County</b>							
<b>Bristol</b>	<b>03</b>	<b>1100EST</b>			<b>0</b>	<b>0</b>	<b>Heavy Rain</b>
		<b>1800EST</b>					

<b>Kent County</b>							
<b>Coventry to</b>	<b>03</b>	<b>1100EST</b>			<b>0</b>	<b>0</b>	<b>Heavy Rain</b>
<b>Conimicut</b>		<b>1800EST</b>					

<b>Newport County</b>							
<b>Tiverton</b>	<b>03</b>	<b>1100EST</b>			<b>0</b>	<b>0</b>	<b>Heavy Rain</b>
		<b>1800EST</b>					

<b>Providence County</b>							
<b>Providence</b>	<b>03</b>	<b>1100EST</b>			<b>0</b>	<b>0</b>	<b>Heavy Rain</b>
		<b>1800EST</b>					



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### RHODE ISLAND

#### Washington County

Westerly	03	1100EST 1800EST			0	0			Heavy Rain
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#### RIZ001>007

Northwest Providence - Southeast Providence - Western Kent - Eastern Kent - Bristol - Washington - Newport

03	1300EST 1900EST			0	0			Strong Winds
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#### RIZ005-007

Bristol - Newport

03	1500EST 1530EST			0	0			High Wind (G63)
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A developing low pressure system moving from the mid Atlantic states to southern New England brought strong southeast winds and heavy rain to Rhode Island. The highest winds were reported in Newport County, where gusts over 60 mph were observed. Acquidnick Island Marina, with an open exposure to the south, reported a gust to 73 mph. Tiverton had a gust to 65 mph and small branches were blown down. A spotter in Portsmouth reported a gust to 63 mph. In Bristol County, a gust to 60 mph in Bristol blew a storm window off the side of a house. Some of the other higher gusts reported include 51 mph on Block Island and 46 mph in the city of Providence and at the Point Judith Coast Guard Station.

Rainfall amounts of 2 to 3 inches were common, and much of that fell in a period of less than 12 hours. As much as 2.85 inches fell in Cumberland, with 2.80 inches in Clayville, 2.56 inches in Cranston, and 2.35 inches in downtown Providence. There were no reports of flooding.

#### Bristol County

Bristol	15	0900EST 1700EST			0	0			Heavy Rain
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#### Kent County

Warwick	15	0900EST 1700EST			0	0			Heavy Rain
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#### Providence County

Providence	15	0900EST 1700EST			0	0			Heavy Rain
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#### RIZ001>007

Northwest Providence - Southeast Providence - Western Kent - Eastern Kent - Bristol - Washington - Newport

15	0900EST 1700EST			0	0			Strong Winds
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#### Washington County

Exeter	15	0900EST 1700EST			0	0			Heavy Rain
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More than 2 inches of rainfall, combined with rapid snowmelt, resulted in considerable urban street flooding. The problem was aggravated by storm drains which were clogged by snow and ice. Thunderstorms during the afternoon brought heavy downpours, adding to the localized flooding. Street flooding was most severe in Providence County. In Providence, Branch and Hawkins Avenues were flooded, and a portion of the roadway was washed out. In Johnston, Highland Avenue flooded, along with several nearby homes. In Cranston, Oaklawn Avenue flooded and several cars were submerged.

Strong southeast winds gusted as high as 55 mph. A spotter in Tiverton reported a peak wind gust of 52 mph.

#### RIZ001>007

Northwest Providence - Southeast Providence - Western Kent - Eastern Kent - Bristol - Washington - Newport

18	1900EST 2200EST			0	0			Strong Winds
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#### RIZ002

Southeast Providence

18	1930EST			0	0			High Wind (G52)
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Cranston

Strong south winds gusted to 55 mph ahead of an approaching cold front. The highest gust reported was 60 mph, at a local



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### RHODE ISLAND

television station in Cranston. Some of the other stronger wind gusts reported include 55 mph at Block Island and Barrington, 50 mph in Newport, 47 mph in Providence, and 46 mph in Coventry. The strong winds downed power lines in Cranston and Warwick, resulting in scattered power outages.